

ABSTRACT

A semiconductor apparatus includes two thin semiconductor films bonded to a substrate, and a thin-film interconnecting line electrically connecting a semiconductor device such as a light-emitting device in the first thin semiconductor film to an integrated circuit in the second thin semiconductor film. Typically, the integrated circuit drives the semiconductor device. The two thin semiconductor films are formed separately from the substrate. The first thin semiconductor film may include an array of semiconductor devices. The first and second thin semiconductor films may be replicated as arrays bonded to the same substrate. Compared with conventional semiconductor apparatus comprising an array chip and a separate driver chip, the invented apparatus is smaller and has a reduced material cost.